

SuperChems Training

SuperChems Hands-On Training

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January 13-15, 2010

Overview

The SuperChems Hands-On Training serves as an introduction to the use of SuperChems with an overview of some recent improvements to its capabilities.

Using a combination of lecture and hands-on examples, this training will guide process and safety engineers on how to use SuperChems to accomplish their current tasks. From designing relief systems and modeling consequence hazards, attendees will be able to use SuperChems to achieve more efficient and accurate results.

Key Topics

- ◆ SuperChems Overview
- ◆ Emergency Relief Sizing
- ◆ Header Evaluation
- ◆ Consequence Modeling
- ◆ Emergency Depressurization

Participants

This course is ideally suited to process industry professionals involved in the design and review of emergency relief systems, process simulation and quantitative risk analysis. Participants are expected to bring their own laptops with either Microsoft Visio 2003 or 2007 installed.

Course Materials and Fee

Attendees will receive presentation summaries, exercises, and the *SuperChems for Beginners Really! User's Guide*.

Fee: \$995

Fee includes breakfast, lunch and refreshments. They do not include hotel accommodations or travel, which are each participant's responsibility.

Course Outline

January 13, 2010 — 8:00 a.m. – 5:00 p.m.

Overview

An introduction to the use and application of SuperChems. Recent improvements will be highlighted.

SuperChems User Interface

An explanation of the unique structure and format of SuperChems. Topics include location and naming of files, where to get help, and how to use the background, object, model and edit screens. Also covered are the application of the universal and action buttons found throughout the program.

SuperChems Structure

An explanation of the object and scenario structure utilized in SuperChems. Objects and scenarios are defined and the relationship between them is explained.

Visio Interface

Using a hands-on approach, the Visio interface is explained. In this section, you will follow along as we use this new feature to construct a piping isometric. Additional tools and applications are highlighted.

Tutorials

Observe as we demonstrate the steps to complete several common relief sizing and rating calculations.

Hands-On Examples

Hands-On examples enable you to repeat and carry out actual calculations based on demonstrated tutorials. Main emphases are on relief system rating and CCPS and API sizing methodologies.

January 14, 2010— 8:00 a.m. – 5:00 p.m.

Summary of Common Models and Utilities

A discussion on the various calculation methodologies employed to generate steady-state and dynamic flow. The discussion will include the short-cut methods, dynamic flow models, piping and header capacity models, and dispersion models.

VLE/Physical and Thermodynamic Property Utilities

A discussion on the various VLE and Property Estimation Utilities available within SuperChems. The discussion includes an explanation of how to incorporate known VLE Data or estimate from available data, such as azeotropic data or data from other simulation tools. An explanation of how to manage the chemical databank, add compounds and their properties is provided. Use and application of the multitude of property estimation utilities is also covered.

Hands-On Examples

Hands-On examples focus on dynamic modeling of both a non-reactive and reactive systems.

Output and Reporting Options

A discussion on how to present your generated data. Topics include exporting information to other programs, creating and usage of streams, formatting data, and generating reports, tables and graphs.

January 15, 2010 — 8:00 a.m. – 12:00 p.m.

More Hands-On Examples

Each example for header evaluation, consequence modeling, and emergency depressurization is demonstrated. By this time, you will be well equipped to replicate these examples in no time and with minimal effort.

Wrap-up Discussion